

BLACKMAGIC DESIGN

Blackmagic URSA

Blackmagic URSA is a high end digital film camera designed to revolutionize on set workflows because it's built to handle the ergonomics of large film crews as well as single person use. Blackmagic URSA has multiple accessories built in, including a massive 10 inch fold out on set monitor, three separate built in LCD monitors for camera settings and metadata entry, large user upgradable Super 35 global shutter 4K image sensor and dual CFast 2.0 card recorders, which allow for unlimited duration recording in high quality RAW and Apple ProRes, all at an affordable price of \$5,995.

Blackmagic URSA's wide 12 stops of dynamic range provide a true feature film look, the large Super 35 size sensor allows for creative shallow depth of field shooting and high resolution Ultra HD, 12 bit lossless compressed Cinema DNG RAW and Apple ProRes allow for easy post production workflows with minimum storage requirements. The sleek machined aluminum design is incredibly strong and features all standard connections, including dual XLR mic/line audio inputs with phantom power, 6G-SDI output for monitoring with camera status graphic overlay and separate XLR 4 pin power output for viewfinder power, 6G-SDI monitoring input, headphone jack, LANC remote control, standard 4 pin 12V DC power connection and built in stereo microphones for recording sound. Blackmagic URSA supports quick release tripod mounts and the addition of V-Mount and Anton/Bauer mount battery plates, and the camera includes a full copy of DaVinci Resolve color grading and editing software.

Blackmagic URSA supports Ultra HD and 1080 HD resolution capture in 23.98, 24, 25, 29.97, 30 and up to 60 fps. It features a liquid

cooling system, which supports higher frame rates for future sensors by keeping the chassis cool and the fan quiet.

Because of Blackmagic URSA's design, users can change or upgrade the sensor and lens mount, meaning they can choose EF or PL lens mounts, broadcast video sensors with B4 mounts or seamlessly incorporate future sensors and mounts. The Blackmagic URSA features a modular camera turret, which includes the sensor, lens mount and lens control connection that can be replaced by removing four simple bolts. Blackmagic URSA comes in four models: URSA PL supports PL mount lenses and URSA EF supports EF mount lenses from Canon, Zeiss and more. Both of these models include the large Super 35 sized global shutter digital film sensor. The URSA Broadcast B4 model features a broadcast video Ultra HD sensor and B4 lens mount used in broadcast. The URSA HDMI model has no sensor, and its lens mount is replaced by a "cheese plate" of mounting points and a HDMI input, allowing any third party camera to get the benefit of the URSA

camera body features.

Blackmagic URSA is designed to be used on high end feature films, commercials, episodic television production, documentaries, electronic news gathering, music videos and more. When used on jobs with a large crew, customers can easily outfit the camera with high quality cinema lenses, rails, follow focus, matte boxes and more. With built in scopes for exposure, focus and audio levels, built in dual recorders and a large 10 inch fold out on set monitor, customers can dramatically reduce the cost and time associated with on set equipment because it's all built into the camera.

Each area of the camera has been divided into separate DOP, camera assistant and audio engineer work stations. The DOP station features a large 10 inch fold out on set monitor and separate five inch screen for settings, camera status and scopes. The camera assist station features a separate screen for camera settings, status and scopes and an audio station features audio meters, controls and audio connections. ■



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Inside the incredibly tough, compact and lightweight magnesium alloy body, the Blackmagic Studio Camera features a very large 10" viewfinder, four hour battery, talkback, front and rear tally indicators using tally over SDI protocol, phantom powered microphone connections and built in optical fiber and SDI connections that allow users to connect to a live production switcher with a single cable, as well as for camera output and monitoring input. Blackmagic Studio Camera also features all standard connections, including dual XLR balanced mic/line audio in with switchable phantom power, headphone and microphone jack for talkback, LANC remote control and standard 4 pin XLR broadcast standard DC 12V power connection. The camera supports 23.98, 24, 25, 29.97, 30fps in the 4K model and up to 60 fps in the HD model.

Live production professionals often have to use cameras designed for general video production, and this means they don't get features live production demands. Blackmagic Studio Camera looks to solve this in several ways. Small viewfinders can be problematic, so the Blackmagic Studio Camera includes a massive 10

inch screen that allows creativity when

framing and accurately focusing. The viewfinder's LCD is extremely bright and has a very wide viewing angle, so it is perfect for use even in direct

sunlight. The camera also includes a large fold up sun shield, making it perfect for outdoor use, and the sun shade also acts as a privacy shield when in use.

The Blackmagic Studio Camera features an active Micro Four Thirds lens mount that is compatible with a wide range of lenses and adapters.

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This allows customers to use high quality photo lenses for smaller setups or fixed camera use, and then use high end broadcast ENG lenses for large, live broadcasts using an MFT to B4 lens mount adapter. This flexibility means customers can start out with a more affordable setup based on photo lenses and then move to larger ENG lenses as they grow their businesses.

The Blackmagic Studio Camera includes a built in fiber optic connection, providing the long distance and small size and weight of optical fiber for a single thin tether cable to connect cameras to live production switchers. The optical fiber connection is bi-directional and carries HD or Ultra HD video with embedded audio, talkback,

tally SDI standard used on the ATEM range of live production switchers, and tally lights illuminate automatically with a light on the front for talent, as well as a light above the viewfinder for the operator, making it easy for the cast and crew to see which cameras are on air. To allow independent operation with only a single optical fiber cable, the Blackmagic Studio Camera also includes a massive four hour battery with enough power for use on long live productions, as well as setup time before the event starts. The operator side control panel allows instant access to focus, iris and on screen menu settings. On screen menus are overlaid on the viewfinder and slide on and off as needed. ■

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Teranex Express

Teranex Express is the world's first real-time SD, HD and Ultra HD broadcast up- and down-converter and is the world's first 12G-SDI video technology for only \$1,395.

It includes 12G-SDI/dual link 6G-SDI in and out and upgradable to optical fiber SDI in and out, full conversion of timecode and subtitles, 16 channels of frame-accurate audio conversions and full audio channel remapping, reference input for built-in frame sync feature and built-in power supply supports 110V to 240V AC.

Teranex Express is the world's first broadcast converter to include multi-rate 12G-SDI connections with the ability to switch between 12G-SDI, 6G-SDI, 3G-SDI, HD-SDI and SD-SDI, making it compatible with a wide range of existing SD, HD and Ultra HD equipment. These connections can transfer data at 12 gigabits per second, making them fast enough to support progressive Ultra HD video at up to 60 fps. This means Teranex Express will be able to support emerging formats when they become available, a truly expandable and future proof solution.

Teranex Express incorporates the advanced patented Teranex algorithms for the visually transparent quality conversions in a new design that includes 178 different SD, HD and Ultra HD up and down conversions in full 10-bit quality complete with audio, closed captions, timecode and more.

Teranex's proprietary and patented PixelMotion de-interlacing algorithms are built into the new Teranex Express, so customers receive



perfect progressive frames from interlaced material. The real-time processing adjusts the aperture on a pixel by pixel basis, improving image quality because the vertical resolution is maintained. PixelMotion de-interlacing preserves source detail, and when combined with multidirectional diagonal filters, eliminates jaggies on conversions. The result is well-defined edges and the sharpest images possible.

Teranex Express also supports conversion of up to 16 audio channels plus timecode and closed caption VANC data. Teranex Express is also compatible with Dolby encoded audio, so it never has to be decoded or re-encoded during up and down conversions of the same frame rate. With Teranex Express, subtitles are always retained and both audio and timecode always stay in perfect sync with your video. ■

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DaVinci Resolve 11

Blackmagic Design's DaVinci Resolve is the world's highest performance on set, editing and color correction solution for Mac OS X, Windows and Linux computers. The new DaVinci Resolve 11 includes numerous new editing and color grading features, with major improvements to online editing plus context sensitive trimming, on set file cloning, photographer style color grading tools and a collaborative workflow that allows multiple users to work simultaneously on the same timeline.

DaVinci Resolve 11 has more than 70 new editing features based on feedback from professional editors. With DaVinci Resolve 11, editors now have dual monitor support and familiar professional tools, including dynamic JKL trimming, audio crossfades and fully customizable keyboard shortcuts for faster editing. Trimming tools are context sensitive, which means DaVinci Resolve automatically knows whether editors want to ripple, roll, slip, slide, extend or shorten edits based on the position of the mouse. This makes editing super fast because time is not wasted switching tools, and clips can be trimmed on multiple tracks simultaneously in the same direction or asymmetrically.

DaVinci Resolve 11 features a new spline curve keyframe editor integrated into the edit timeline that positions keyframes directly under each clip and in context with the clip. Editors can now also add and animate open FX plugins directly in the timeline, as well as use plug-ins for transitions.

The new collaborative workflow tools in DaVinci Resolve 11 allow an editor and multiple colorists to work from different workstations, while sharing the same timeline and working in tandem as they complete shots. A colorist can color grade or track windows while another

colorist fine tunes grades that are all immediately updated as the editor edits. Each user can see the timeline update, so they are all working on the same job at the same time. Sharing the same timeline makes it much easier for creative teams to stay in sync and work faster on large complex jobs, such as feature films and television programming.

One of the most exciting advantages of the upgraded editing features in DaVinci Resolve 11 is the enhanced round trip collaboration with Apple Final Cut Pro X. More of the features in each ap-

tools, DaVinci Resolve 11 can securely back up and save digital camera files. The new DaVinci Resolve clone tool copies media drives, memory cards and camera packs to multiple destinations simultaneously. All copies are checksum verified, which means users get exact bit for bit digital copies of their source media. The new clone tool is included in the free DaVinci Resolve Lite version and can be installed on a laptop for on set use.

DaVinci Resolve 11 also features a unique and powerful automatic color chart color balancing tool



plication are compatible, so projects can be moved back and forth easily. This integrated workflow makes it possible to allow independent filmmakers to integrate with the largest post production facilities throughout the post production process.

Color correction features have also been upgraded in DaVinci Resolve 11, including all new RAW image and color grading controls that are designed for photographers who are moving into cinematography. The new camera RAW palette features highlight and shadow recovery, mid tone detail, color boost, saturation, lift, gain and contrast. DaVinci Resolve 11 solves the single frame limitations of photo enhancement systems and gives photographers advanced control over RAW images, so they can pull the maximum detail from high dynamic range footage in real time.

Adding to DaVinci Resolve's powerful on set

that works on all types of footage, including video, RAW and even film. The new color match tool automatically gives a primary base grade by analyzing shots containing standard color chip charts even if they were shot in different lighting conditions with different exposure and color temperatures.

DaVinci Resolve 11 also adds optimizations to OpenCL image processing, which allows improved rendering speeds on the new Apple MacPro systems. The MacPro features dual GPUs so is the ideal solution for customers looking for an "off the shelf" solution that easily handles the high processing speeds when working on Ultra HD work in the deepest YRGB 32 bit float processing quality.

DaVinci Resolve 11 is available free of charge for all current DaVinci Resolve customers and retails at \$995 for new users. DaVinci Resolve Lite is a free download for all users. ■

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